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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
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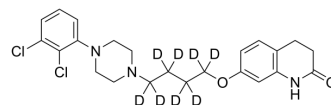
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Aripiprazole (1,1,2,2,3,3,4,4-d₈)

Cat. No.:	HY-14546S1	
CAS No.:	1089115-04-7	
Molecular Formula:	C ₂₃ H ₁₉ D ₈ Cl ₂ N ₃ O ₂	
Molecular Weight:	456.43	
Target:	5-HT Receptor; Isotope-Labeled Compounds	
Pathway:	GPCR/G Protein; Neuronal Signaling; Others	
Storage:	Powder	-20°C 3 years 4°C 2 years
	In solvent	-80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMF : ≥ 30 mg/mL (65.73 mM)
 DMF : ≥ 30 mg/mL (65.73 mM)
 DMSO : ≥ 25 mg/mL (54.77 mM)
 DMSO : ≥ 25 mg/mL (54.77 mM)
 Ethanol : ≥ 1 mg/mL (2.19 mM)
 Ethanol : ≥ 1 mg/mL (2.19 mM)
 DMF:PBS (pH 7.2) (1:1) : ≥ 0.12 mg/mL (0.26 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		2.1909 mL	10.9546 mL	21.9092 mL
	5 mM		0.4382 mL	2.1909 mL	4.3818 mL
	10 mM		0.2191 mL	1.0955 mL	2.1909 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Aripiprazole (1,1,2,2,3,3,4,4-d₈) is the deuterium labeled Aripiprazole. Aripiprazole (OPC-14597) is a human 5-HT_{1A} receptor partial agonist with a K_i of 4.2 nM^{[1][2]}.

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Neurosci. 2021 Dec 9.
- Chemosphere. 2019 Jun;225:378-387.
- Acta Pharmacol Sin. 2021 May 11.
- Int J Pharmaceut. 2020 Jun 15;583:119361.
- Int J Mol Sci. 2024 Jan 14, 25(2), 1035.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216.
- [2]. Stip E, Tourjman V. et al. Aripiprazole in schizophrenia and schizoaffective disorder: A review. *Clin Ther*. 2010;32 Suppl 1:S3-20.
- [3]. Burris KD, Molski TF, Xu C et al. Aripiprazole, a novel antipsychotic, is a high-affinity partial agonist at human dopamine D2 receptors. *J Pharmacol Exp Ther*. 2002 Jul;302(1):381-9.
- [4]. Swainston Harrison T, Perry CM. Aripiprazole: a review of its use in schizophrenia and schizoaffective disorder. *Drugs*. 2004;64(15):1715-36.
- [5]. Nagasaka Y, Oda K, Iwatsubo T, Kawamura A, Usui T. Nagasaka Y, Oda K, Iwatsubo T, Kawamura A, Usui T. Effects of aripiprazole and its active metabolite dehydroaripiprazole on the activities of drug efflux transporters expressed both in the intestine and at the blood-brain barrier. *Biopharm Drug Dispos*. 2012 Jul 27. doi: 10.1002/bdd.1801.
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Caution: Product has not been fully validated for medical applications. For research use only.

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